

**REMARKS**

Claims 1-5, 7-13 and 15-38 are pending in the application. Claims 1-4, 9-12 and 26-28 are withdrawn from consideration. By this Amendment, new claims 36-38 have been added and claims 6 and 14 are canceled without prejudice or disclaimer.

Applicant submits that the subject matter of dependent claims 6 and 14 have been added to independent claims 5 and 13, respectively, and the subject matter of dependent claim 14 has been added to independent claim 17.

As a preliminary matter, Applicant submits minor corrections to claims 15, 20, 29, 30 and 34 to obviate the Examiner's objections to the same.

In response to the Examiner's rejection of the subject matter in claims 7 and 15 under 35 U.S.C. § 112, first paragraph, Applicant submits that the subject matter in claims 7 and 15 is sufficiently described in the specification to enable one skilled in the art to make or use the invention. For example, line 2 on page 37 through line 1 on page 38 of the Specification discloses that:

the detecting level changing means 3 may be arranged to change the detecting level part by part of the mammogram P. For example, when the part where there is in duration can be specified to some extent through, for instance, prior information obtained by examination by touch, the detecting level may be changed only for a specified part of the image.

With the above, Applicant propose submitting that the subject matter in claims 7 and 15 complies with § 112, first paragraph.

Claims 5, 7, 8, 13, 15-22, 24, 25, 29, 30 and 34 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakajima (U.S. Patent No. 5,761,334; hereinafter “Nakajima”) in view of Ellis (U.S. Patent No. 6,718,053; hereinafter “Ellis”). Claims 6, 14, 23 and 35 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakajima and Ellis and further in view of Ono (U.S. Patent No. 6,088,425; hereinafter “Ono”). Claims 31, 32 and 33 are objected to under 37 C.F.R. § 1.75 as being a substantial duplicate of claims 6, 14, and 23, respectively. Applicant submits the following in traversal of the claim rejections.

Rejection of Claims 5, 7, 8, 13, 15-22, 24, 25, 29, 30 and 34 under § 103(a) over Nakajima in view of Ellis

Rejection of Claims 6, 14, 23 and 35 under § 103(a) over Nakajima and Ellis and further in view of Ono

Applicant submits independent claim 5 which has been amended to include the subject matter of claim 6.

Applicant respectfully submits that claim 5 is patentable because a *prima facie* case of obviousness has not been established for the combination of Nakajima, Ellis and Ono. Applicant submits that Ellis is a nonanalogous art and cannot be properly used as a basis for a § 103 rejection. M.P.E.P. 2141.01(a). In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned. *Id.*

An embodiment of the Applicant's invention relates to a method and a system for detecting a prospective abnormal shadow in a radiation image. *See* page 1, lines 9-10. In contrast, Ellis relates to the analysis of the images of cancer cells obtained with visual light using

a microscope, and does not disclose the analysis of images obtained through radiography.

Because the field of Ellis is different from the field of Applicant's endeavor, Ellis cannot possibly disclose photographing conditions such as tube voltage or the tube current of the radiation source, the irradiating time, the product of the tube current and the irradiating time, and the degree of compression of the object when the object is photographed under pressure, as recited in claim 5.

Therefore, one skilled in the art would not combine the teachings of Nakajima and Ellis to render claim 5 obvious because Ellis is nonanalogous to the invention of the current Application.

For reasons similar to those submitted for independent claim 5, independent claims 13 and 17 are patentable.

Claims 7, 8, 31 and 36, which depend from claim 5, are patentable for at least the reasons submitted for claim 5. Claims 15, 16, 29, 30, 32 and 37, which depend from claim 13, are patentable for at least the reasons submitted for claim 13. Claims 18-25, 33, 34 and 38, which depend from claim 17, are patentable for at least the reasons submitted for claim 17.

In addition, claim 7 is patentable because Nakajima and Ellis fail to teach, suggest or provide motivation for all elements of the claim. For example, Nakajima and Ellis fail to teach, suggest or provide motivation for a method wherein the detecting level is changed part by part in the image. In the Office Action, the Examiner states that this aspect of the claim is "inherent because when an image is compared to a threshold, each pixel in the image is compared to a detecting level, meaning that it is done 'part by part' or 'pixel by pixel.'" To the contrary, claim

7 recites that the detecting level is changed part by part which is entirely different from applying the same threshold level to each pixel. Therefore, claim 7 is patentable.

For reasons similar to those submitted for claim 7, claim 15 is patentable because Nakajima in view of Ellis fails to teach, suggest or provide motivation for a detecting level changing means which changes the detecting level part by part and the prospective abnormal shadow detecting means which detects a prospective abnormal shadow according to the detecting level changed by the detecting level changing means part by part.

Objection to Claims 31, 32 and 33 under 37 C.F.R. § 1.75 as being substantial duplicates of claims 6, 14 and 23, respectively

Applicant submits that claims 31, 32 and 33 are not substantial duplicates of claims 6, 14 and 23, respectively. For example, claims 6, 14 and 23 all recite a grid. In contrast, none of claims 31, 32 and 33 recite a grid. Therefore, the scope of claims 31, 32 and 33 is different from the scope of claims 6, 14 and 23, respectively, and are not substantial duplicates. See MPEP § 706.03(k)

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.111  
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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.


Respectfully submitted,

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